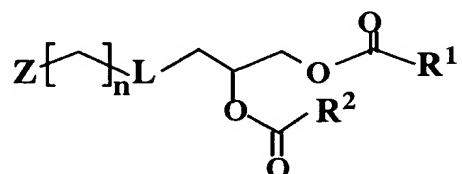


Abstract

A composition for delivery of Factor VIII is described. The composition is comprised of an expression vector encoding for Factor VIII and a lipid represented by the formula:



where each of R^1 and R^2 is an alkyl or alkenyl chain having between 8-24 carbon atoms; $n = 0-20$, preferably 1-20; L is selected from the group consisting of (i) $-\text{X}-\text{C}(=\text{O})-\text{Y}-$, (ii) $-\text{X}-\text{C}(=\text{O})-$, and (iii) $-\text{X}-$, where X and Y are independently selected from oxygen, NH and a direct bond; and Z is a weakly basic moiety that has a pK of less than 7.4 and greater than about 4.0.